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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/398,006	09/16/1999	YOICHI OKAMOTO	Q55806	9551

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EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1733

13

DATE MAILED: 05/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/398,006	Applicant(s) OKAMOTO ET AL.	
	Examiner Justin R Fischer	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barassi (US 3,656,533, of record). Barassi is applied for the same reasons set forth in Paper Number 10, Paragraph 2. It should be noted that applicant has amended the claim to include a pneumatic radial tire comprised of three rubberized cord layers each containing steel cords. In describing the belt structure, Barassi suggests (a) the placement of at least one metallic strip between a pair of textile strips and (b) the placement of an additional strip of metallic material in a radially outermost belt layer. The "at least one metallic strip" is formed of cords that are inclined at an angle between 13° and 33° relative to the equatorial plane of the tire while the "additional strip of metallic material" is formed of cords that are inclined at an angle between 60° and 90° relative to the equatorial plane of the tire (Column 1, Lines 51-64). Thus, it is evident that Barassi is directed to a belt structure having three rubberized cord layers formed of steel cords.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barassi as applied to claim 1 above, and further in view of Kohno (US 5,968,295, of record).

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Barassi and Kohno are applied for the same reasons set forth in paper Number 10, Paragraph 3.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barassi as applied to claim 1 above, and further in view of Okamoto (US 5,779,828, of record). Barassi and Okamoto are applied for the same reasons set forth in Paper Number 10, Paragraph 4.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barassi as applied to claim 1 above, and further in view of Imamura (US 3,913,652, of record). Barassi and Imamura are applied for the same reasons set forth in Paper Number 10, Paragraph 5.

Response to Arguments

6. Applicant's arguments filed April 2, 2002 have been fully considered but they are not persuasive. In this instance, applicant has provided a primary argument with respect to the location of a circumferential groove as compared to the axial extent of the radially outermost belt layer, it being acknowledged by applicant that circumferential grooves represent a conventional tire component. Applicant argues that although the radially outermost belt of Barassi extends over the entire ground contact area, this does not exclude the presence of grooves outside the ground contact width for purposes of drainage. In response to this argument, although Barassi does not depict a belt structure, the reference does state, "the blocks and the grooves of the treads which remain in their original molding position, facilitate water elimination" (Column 2, Lines 5-10). Furthermore, the reference states that the radially outermost belt layer has a width

that extends over the entire part of the ground contact area and provides adequate support for the tread blocks (Column 2, Lines 18-22 and Lines 60-62). Thus, since the tread blocks are defined by grooves, it is evident that in order for the radially outermost belt layer to "support the tread blocks", the belt would necessarily be positioned axially outward of the tread blocks and the tread grooves. Also, though the grooves of Barassi are not expressly described as "circumferential grooves", the reference does suggest that the grooves "facilitate water elimination" (Column 2, Lines 8-10). As previously stated by the examiner and acknowledged by applicant (Paper Number 10, Paragraph 2), circumferential grooves are conventionally included in a variety of tread patterns to improve wet performance. Therefore, one of ordinary skill in the art at the time of the invention would have readily appreciated the use of circumferential grooves in the tread pattern of Barassi since the reference identifies the grooves as "facilitating water elimination", it being well known that circumferential grooves are conventionally employed to improve wet performance.

Applicant provides a second argument with respect to the belt construction of Barassi, stating that Barassi fails to define a belt structure comprised of three rubberized cord layers each containing steel cords. Contrary to this argument, Barassi does in fact teach a belt structure comprised of three rubberized cord layers each containing steel cords. Barassi describes the use of at least one metallic strip between a pair of textile strips and the use of an additional strip of metallic material in a radially outermost belt layer (Column 1, Lines 51-64). Applicant incorrectly points to Column 2, Lines 39-41 to suggest that only layer 7 is formed of metallic reinforcing elements. It is

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evident that line 40 of Barassi contains a typographical error and should read "two layers 4 and 5". This correction is clearly supported by Figure 2 and the additional comments in Column 2, Lines 45-49. Thus, Barassi does in fact teach a belt structure in which a first and second metallic belt layer (or more) are sandwiched between a pair of textile strips and a third metallic belt layer is disposed as a radially outermost belt layer.

Regarding Okamoto, applicant argues that the examiner relies on Okamoto for the teaching a specific end cover rubber in the belt region but fails to recognize that this reference contains a circumferential groove that is disposed outward of the radially outermost belt layer. In this instance, Barassi defines the fundamental structure of the claimed invention, including a radially outermost belt layer that extends axially beyond the outermost circumferential groove. Furthermore, Okamoto is applied to suggest the use of a specific end cover rubber in belt plies in order to provide reinforcement in both the radial and the axial directions, thereby reducing the occurrence of belt end separation. Applicant appears to suggest that the end cover rubber of Okamoto is specific to the tread pattern of Okamoto and one of ordinary skill in the art at the time of the invention would not have found its use in the tire of Barassi to be obvious.

However, the reference in no way suggests that the end cover rubber is specific to a crown structure in which the outermost circumferential groove is disposed outside of the edges of the radially outermost belt layer. As such, one of ordinary skill in the art at the time of the invention would have recognized the benefits of the end cover rubber of

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Okamoto as being generally directed to a variety of crown structures, including that of Barassi.

Applicant provides a similar argument with the use of Imamura. Again, as stated above, the reference in no way suggests the end cover rubber is specific to the given crown structure in which the radially outermost belt layer is the narrowest of all the belt layers. One of ordinary skill in the art at the time of the invention would have readily appreciated the end cover of Imamura in the crown structure of Barassi for the benefits of reduced belt end separation, as set forth in Paper Number 10.

Finally, applicant makes a statement which suggests that the examiner contends that the circumferential grooves of Kohno "are nothing more than representative and ultimately do not suggest any relationship between the width of the outermost cord layer and the axial extent of the circumferential grooves" (Page 6 of Amendment). This statement was provided in Paper Number 10, Paragraph 6 to outline the arguments presented by applicant. The examiner never agreed with this statement and the rejection with respect to Kohno was solely withdrawn based on an ineffective priority date.

Miller (US 4,456,046) is cited of interest and describes a high-speed, radial tire having a radially outermost belt that extends axially beyond the outermost circumferential groove, it being stated that the groove pattern has the function of removing water entering the tread contact patch (Figure 1 and Column 2, Lines 27-40).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Justin Fischer

May 14, 2002



Michael W. Ball

Supervisory Patent Examiner
Technology Center (TCO)